



## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

**[Docket No. FWS–R8–ES–2013–0049; 4500030113]**

**RIN 1018–AZ33**

**50 CFR Part 17**

### **Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for *Diplacus vanderbergensis* (Vandenberg Monkeyflower)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, propose to designate critical habitat for *Diplacus vanderbergensis* (Vandenberg monkeyflower) under the Endangered Species Act. If we finalize this rule as proposed, it would extend the Act's protections to

this species' critical habitat. The effect of this regulation is to conserve Vandenberg monkeyflower's habitat under the Endangered Species Act.

**DATES:** We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter Docket No. FWS-R8-ES-2013-0049, which is the docket number for this rulemaking. You may submit a comment by clicking on "Comment Now!"

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R8-ES-2013-0049; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042-PDM; Arlington, VA 22203.

We request that you send comments only by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will

post any personal information you provide us (see the **Information Requested** section below for more information).

**FOR FURTHER INFORMATION CONTACT:** Stephen P. Henry, Acting Field Supervisor, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA, 93003; telephone 805–644–1766; facsimile 805–644–3958. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

## **SUPPLEMENTARY INFORMATION:**

### **Executive Summary**

*Why we need to publish a rule.* Critical habitat shall be designated, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Designations and revisions of critical habitat can only be completed by issuing a rule. Elsewhere in today’s **Federal Register**, we propose to list the *Diplacus vandenbergensis* (hereafter referred to as Vandenberg monkeyflower) as an endangered species under the Act. This document consists of a proposed rule for designation of critical habitat for Vandenberg monkeyflower.

*The basis for our action.* Under the Act, when a species is proposed for listing, to the maximum extent prudent and determinable, we must designate critical habitat for

the species. The species has been proposed for listing as endangered, and therefore, we also propose to designate approximately 5,785 acres (ac) (2,341 hectares (ha)) of habitat as critical habitat in Santa Barbara County, California.

*We will seek peer review.* We are seeking comments from knowledgeable individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information received during the comment period, our final determination may differ from this proposal.

### **Information Requested**

We intend that any final action resulting from this proposed rule will be based on the best scientific data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to

increase due to the designation, and whether that increase in threats outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

(a) The amount and distribution of Vandenberg monkeyflower and its habitat;

(b) What may constitute “physical or biological features essential to the conservation of the species,” within the geographical range currently occupied by the species;

(c) Where these features are currently found;

(d) Whether any of these features may require special management considerations or protection;

(e) What areas that are currently occupied by the species contain features essential to the conservation of the species that should be included in the designation and why; and

(f) What areas not occupied at the time of listing are essential for the conservation of the species and why.

(3) Land use designations and current or planned activities in the areas occupied by the species or proposed to be designated as critical habitat, and possible impacts of these activities on this species and proposed critical habitat.

(4) Comments or information that may assist us in identifying or clarifying the primary constituent elements (PCEs).

(5) Information on the projected and reasonably likely impacts of climate change on Vandenberg monkeyflower and proposed critical habitat.

(6) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas from the proposed designation that are subject to these impacts.

(7) Any foreseeable impacts on energy supplies, distribution, and use resulting from the proposed designation and, in particular, any impacts on electricity production, and the benefits of including or excluding any particular areas that exhibit these impacts.

(8) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. We specifically seek comments on whether the existing management plans for Burton Mesa Ecological Reserve and La Purisima Mission State Historic Park (SHP), respectively, provide a conservation benefit to Vandenberg monkeyflower and its habitat. We also seek comments on whether there is a reasonable expectation that the conservation management strategies and actions in these management plans will be implemented into the future.

(9) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments.

(10) The likelihood of adverse social reactions to the designation of critical habitat and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments only by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service (Service), Ventura Field Office (see **FOR FURTHER INFORMATION CONTACT**).

## **Previous Federal Actions**

All previous Federal actions are described in the proposal to list Vandenberg monkeyflower as an endangered species under the Act published elsewhere in today's **Federal Register**.

## **Background**

In this proposed rule, we intend to discuss only those topics directly relevant to the designation of critical habitat. Additional information pertaining to Vandenberg monkeyflower description, taxonomy, life history, geographic setting, climate, and habitat can be found in the proposed listing rule published elsewhere in today's **Federal Register**.

## **Critical Habitat**

### *Background*

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

(a) Essential to the conservation of the species, and

- (b) Which may require special management considerations or protection; and
- (2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat,

the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographic area occupied by the species at the time it is listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements (PCEs) such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. We consider PCEs to be those specific elements of the physical or biological features that provide for a species' life history processes and, under the appropriate conditions, are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographic area occupied by the species at

the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographic area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria and guidance and establish procedures to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. Therefore, we recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

#### *Prudency Determination*

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR

424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the degree of threat to the species; or (2) the designation of critical habitat would not be beneficial to the species.

As discussed in the Factor B discussion of our proposed listing rule (published elsewhere in today's **Federal Register**), there is currently no indication that collection or vandalism is a threat to Vandenberg monkeyflower, and identification and mapping of critical habitat is not expected to initiate such threat. Most of the areas proposed for critical habitat either have restricted public access (Burton Mesa Ecological Reserve) or are already open to the public (hiking trails in the Reserve and La Purisima Mission SHP). The degree of threat from casual human access, or any other identified threat (see the listing rule published elsewhere in today's **Federal Register**), is not expected to increase as a result of critical habitat designation.

In the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. Here, the potential benefits of designating critical habitat for Vandenberg monkeyflower include, but are not limited, to: (1) Focusing conservation activities on the most essential features and areas; (2) providing educational benefits to

State or county governments, private entities, and the public; and (3) reducing the potential for the public to cause inadvertent harm to the species. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for Vandenberg monkeyflower.

#### *Critical Habitat Determinability*

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the Vandenberg monkeyflower is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or

(ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species, habitat characteristics where this species is located, and potential impacts of designation. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for Vandenberg

monkeyflower.

### *Climate Change and Critical Habitat*

Climate change will be a particular challenge for biodiversity because the interaction of additional stressors associated with climate change and current stressors may push species beyond their ability to survive (Lovejoy 2005, pp. 325–326). The synergistic implications of climate change and habitat fragmentation are the most threatening facet of climate change for biodiversity (Hannah and Lovejoy 2005, p. 4). Current climate change predictions for terrestrial areas in the Northern Hemisphere indicate warmer air temperatures, more intense precipitation events, and increased summer continental drying (Field *et al.* 1999, pp. 1–3; Hayhoe *et al.* 2004, p. 12422; Cayan *et al.* 2005, p. 6; Seager *et al.* 2007, p. 1181). Climate change may lead to increased frequency and duration of severe storms and droughts (McLaughlin *et al.* 2002, p. 6074; Golladay *et al.* 2004, p. 504; Cook *et al.* 2004, p. 1015).

Documentation of climate-related changes that have already occurred in California (Bell *et al.* 2004; Snyder *et al.* 2004; PRBO Conservation Science 2011; Lenihan *et al.* 2008), and predictions of changes in temperature and precipitation for the Santa Barbara County area (such as an increase in temperature of approximately 2.5 °F (1.4 °C) and a decrease in precipitation of approximately 10 percent (ClimateWizard 2012)) and North America (IPCC 2007, p. 9) indicate climate-related changes will continue in the future. We anticipate these changes could affect Vandenberg

monkeyflower by reducing suitable habitat; however, because of the influence of the ocean temperatures, the effect of climate change on Burton Mesa may be moderated (see also “Factor A—Climate Change” section of the proposed listing rule published elsewhere in today’s **Federal Register**).

#### *Physical or Biological Features*

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographic area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific physical or biological features required for Vandenberg monkeyflower from studies of this species’ habitat, ecology, and life history as described

below. Additional information can be found in the proposed listing rule published elsewhere in today's **Federal Register**. We have determined that the following physical or biological features are essential for Vandenberg monkeyflower:

#### Space for Reproduction, Dispersal, and Individual and Population Growth

##### *Canopy Openings*

Vandenberg monkeyflower only occurs in sandy openings (canopy gaps) within dominant vegetation consisting of Burton Mesa chaparral (see the "Background" section in the proposed listing rule published elsewhere in today's **Federal Register**). The sunny openings provide the space needed for individual and population growth, including sites for germination, reproduction, seed dispersal, seed banks, and pollination.

Canopy gaps are important for seed germination and seedling establishment, and for maintaining the seed banks of many chaparral species (Davis *et al.* 1989, pp. 60–64; Zammit and Zedler 1994, pp. 11–13). As the canopy closes and grows in height, the understory is generally bare, with most herbs restricted to remaining canopy gaps (Van Dyke *et al.* 2001, p. 9). Because gaps receive more light, soil temperatures may be as much as 23 °C (73 °F) higher than under the surrounding shrub canopy (Christensen and Muller 1975b, p. 50). Such temperatures are high enough to stimulate seed germination in many species (for example, *Helianthemum scoparium* (rush-rose)) (Christensen and Muller 1975a, p. 77). Additionally, herbivory is less pronounced in openings than under

or near the canopy (Halligan 1973, pp. 430–432; Christensen and Muller 1975b, p. 53; Davis and Mooney 1985, p. 528). Furthermore, allelopathic (biochemical) effects of the shrub canopy are probably reduced in openings (Muller *et al.* 1968, pp. 227–230).

Numerous studies have recognized canopy gaps in mature chaparral as important microhabitats where some subshrubs and herbs [such as Vandenberg monkeyflower] persist between fires (Horton and Kraebel 1955, pp. 258–261; Vogl and Schorr 1972, pp. 1182–1187; Keeley *et al.* 1981, pp. 1615–1617; Davis *et al.* 1989, p. 64). Additionally, many chaparral plants have characteristics that promote reestablishment after fires. Thus, fire plays a significant role in maintaining chaparral community heterogeneity and in nutrient cycling, and its role has been extensively documented (see Christensen and Muller 1975a, b; Keeley 1987) (See “Factor A—Anthropogenic Fire” section in the proposed listing rule published elsewhere in today’s **Federal Register**).

When fire occurs, it clears out aboveground living vegetation and dead wood, deposits nutrient-rich ash, and makes space and sunlight available for seedling establishment. High numbers of herbaceous annuals and perennials appear shortly after fire has cleared away the tall, dense shrubs (Gevirtz *et al.* 2007, p. 58). Many of these fire-followers decline over time after a fire, although some persist in small numbers for decades after their peak post-fire densities (Gevirtz *et al.* 2007, p. 103). In the first few years, habitat may appear as coastal scrub rather than chaparral, both in structure and in the species present (e.g., (*Salvia mellifera*) black sage, (*Artemisia californica*) California sagebrush, (*Frangula californica*) coffee berry, (*Baccharis pilularis*) coyote brush,

*Toxicodendron pubescens* (poison oak)). Gradually, however, (*Arctostaphylos* spp.) manzanita, (*Ceanothus* spp.) ceanothus, (*Adenostoma fasciculatum*) chamise, and other species overtop the early species and come to dominate the landscape. The response of Vandenberg monkeyflower to fire is not currently known; however, because this species occurs within maritime chaparral, it is likely adapted to a naturally occurring fire regime of the Burton Mesa. Because Vandenberg monkeyflower occurs within the canopy gaps of Burton Mesa chaparral, these gaps are important for the plants' persistence between fire events. As the canopy closes with dominant vegetation, the gaps provide the space for annuals small in stature, such as Vandenberg monkeyflower, to grow and reproduce. Therefore, we identify canopy gaps to be a physical or biological feature for Vandenberg monkeyflower.

### *Loose Sandy Soils*

The gaps in the canopy where this species occurs consist of loose, sandy soils. The Burton Mesa dune sheet is the largest exposure of mid-Pleistocene sands in the Santa Maria Basin (Hunt 1993, p. 14). These dunes are old enough to have developed a soil profile, classified as Tangair and Narlon soils (Soil Conservation Service 1972). Subsurface soils are typically hardened by iron oxides; however, surface exposures are commonly composed of loose sand (Hunt 1993, p. 15). The oldest dune deposits lie beneath dunes that were wind-deposited approximately 10,000 to 25,000 to as much as 125,000 years ago (Orme and Tchakerian 1986, pp. 155–156; Johnson 1983, in Hunt 1993, p. 15). Contributing to the formation of these vast dune systems was a rapid fall in

sea level approximately 18,000 years ago, perhaps as much as 300 ft (91 m) below the present shoreline, which exposed vast quantities of sediment that were later transported miles inland by onshore winds (Hunt 1993, p. 16).

The more recent dune deposits (i.e., 10,000 to 125,000 years ago) comprise the bulk of the dunes found on Burton Mesa. These newer dunes on Burton Mesa are composed of poorly consolidated to unconsolidated red to yellow sands with a clay-enriched B-horizon profile; the substratum is generally a dense, cemented sand layer (Hunt 1993 p. 16). This cemented layer may contribute to the water-holding capacity of the soil, which in turn affects the types of plants and vegetation communities observed. Additionally, both the older and newer dune deposits have substrates with significantly higher proportions of fine sands relative to even more recent sand deposits, thus forming a dense soil (Hunt 1993, p. 16). Topsoil in Burton Mesa is uniformly medium sand, but the depth of soil to bedrock varies throughout the mesa, and several soil types are present (Davis *et al.* 1988, pp. 170–171). The most widespread soils are Marina, Tangair, and Narlon sands; however, other soil types, such as Arnold Sand, Botella Loam, Terrace Escarpments, and Gullied Land, are present on Burton Mesa where Vandenberg monkeyflower grows (Soil Conservation Service 1972).

This species appears more closely tied to loose, sandy soil than to a specific soil type. Therefore, because Vandenberg monkeyflower occurs on all soil types listed above, but appears to be more closely associated with loose, sandy soils regardless of the soil type, we identify loose, sandy soils on Burton Mesa as a physical or biological

feature for Vandenberg monkeyflower.

### *Contiguous Chaparral Habitat*

The structure of the chaparral habitat on Burton Mesa is a mosaic of maritime chaparral vegetation (which includes maritime chaparral and maritime chaparral mixed with coastal scrub, oak woodland, and small patches of native grasslands (Wilken and Wardlaw 2010, p. 2)) and sandy openings (canopy gaps) that varies from place to place (see *Background—Habitat* in the proposed Listing rule, published elsewhere in today’s **Federal Register**). The invasion of nonnative plants can directly alter the structure of this habitat by displacing native vegetation, including individuals of Vandenberg monkeyflower (see “Factor A—Invasive, Nonnative Species” section in the listing rule published elsewhere in today’s **Federal Register**). Fragmentation of the habitat (due to invasive, nonnative plants) has negative effects on rare plant populations (Aguilar *et al.* 2008, pp. 5177–5186). Therefore, the presence of contiguous chaparral habitat on Burton Mesa is important for population growth of Vandenberg monkeyflower because it provides available habitat for seed dispersal and establishment. Gene flow occurs through movement of seeds and pollen within and between occurrences of Vandenberg monkeyflower. Seeds of this species are small and light in weight and are dispersed primarily by gravity but also by wind and water over relatively short distances (Fraga *in litt.* 2012; Thompson 2005, p. 130). A small fraction of wind-dispersed seeds, however, may be caught in updrafts and would be expected to travel longer distances (Greene and Johnson 1995, p. 1036). The principal wind direction in all seasons is north-northwest

(Bowen and Inman 1966, p. 3; Cooper 1967, pp. 73–74; Hunt 1993, p. 27), which would aid local dispersal of seeds after falling from the parent plant. Long-distance dispersal occurs in numerous ways, including vertebrate dispersal (by adhesion or ingestion), wind dispersal of seeds (in updrafts and storms, or by secondary dispersal over the substrate), wind dispersal of plants (tumble-plant dispersal), and water dispersal (Cain *et al.* 2000, p. 1218). Landscape fragmentation over time may reduce the ability of seeds to move longer distances (Cain *et al.* 2000, p. 1223).

Contiguous chaparral habitat on Burton Mesa is important for population growth of Vandenberg monkeyflower because it also provides habitat for insect pollinators. Pollinators move pollen from one flower to another predominantly within the same plant population, but they can move pollen to another plant population if it is close enough and the pollinator is capable of carrying the pollen across that distance. Annual *Diplacus* species have a variety of visitors, including insects, bees, and butterflies. Although no research has been done to determine the effectiveness of various pollinators for Vandenberg monkeyflower (Fraga *in litt.* 2012), based on observations of other small annual *Diplacus* species, small solitary bees are likely an important class of pollinator. Therefore, because contiguous chaparral habitat on Burton Mesa provides habitat connectivity that ensures space for seed dispersal and establishment and movement of pollinators, we identify contiguous chaparral habitat as a physical or biological feature for Vandenberg monkeyflower.

*Primary Constituent Elements (PCEs) for Vandenberg Monkeyflower*

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of Vandenberg monkeyflower in areas occupied at the time of listing, focusing on the features' PCEs. We consider PCEs to be the elements of physical or biological features that provide for a species' life history processes and, under the appropriate conditions, are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the PCEs specific to Vandenberg monkeyflower are:

(1) Native maritime chaparral communities of Burton Mesa comprising maritime chaparral and maritime chaparral mixed with coastal scrub, oak woodland, and small patches of native grasslands. The mosaic structure of the native plant communities (arranged in a mosaic of dominant vegetation and sandy openings (canopy gaps)), may change spatially as a result of succession, and physical processes such as windblown sand and wildfire.

(2) Loose sandy soils on Burton Mesa. As mapped by the Natural Resources Conservation Service (NRCS), these could include the following soil series: Arnold Sand, Marina Sand, Narlon Sand, Tangair Sand, Botella Loam, Terrace Escarpments, and Gullied Land.

With this proposed designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species, through the identification of the features' PCEs sufficient to support the life-history processes of the species. All units and subunits proposed to be designated as critical habitat are currently occupied by Vandenberg monkeyflower and contain the PCEs.

#### *Special Management Considerations or Protection*

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. All areas proposed as critical habitat will require some level of management to address the current and future threats to the physical and biological features essential to the conservation of Vandenberg monkeyflower. In all areas, special management is needed to ensure that the habitat is able to provide for the growth and reproduction of the species.

The habitat where Vandenberg monkeyflower occurs faces threats from urban development, maintenance of existing utility pipelines, anthropogenic fire, unauthorized recreational activities, and most substantially the expansion of invasive, nonnative plants (see *Factors A and E* in the proposed listing rule). Management activities that may reduce these threats include, but are not limited to: (1) Protecting from development

lands that provide suitable habitat; (2) minimizing habitat fragmentation; (3) minimizing the spread of invasive, nonnative plants; (4) limiting authorized casual recreational use to existing paths and trails (as opposed to off-trail use that can spread invasive species to unaffected areas); (5) controlled burning; and (6) encouraging habitat restoration. These management activities would limit the impact to the physical or biological features for Vandenberg monkeyflower by decreasing the direct loss of habitat, maintaining the appropriate vegetation structure that provides the sandy openings that are necessary components of Vandenberg monkeyflower habitat, and minimizing invasive, nonnative plants spreading to areas where they currently do not exist. Preserving large areas of contiguous suitable habitat throughout the range of the species should maintain the mosaic structure of the Burton Mesa chaparral that may be present at any given time, and maintain the genetic and demographic diversity of Vandenberg monkeyflower.

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside those occupied at the time of listing—are necessary to ensure the conservation of the species. We are proposing to designate critical habitat in areas within the geographic area occupied by Vandenberg monkeyflower at the time of listing and that contain sufficient elements of the physical or biological features essential to the conservation of the species.

We are not currently proposing to designate any areas outside the geographic area occupied by the species at the time of listing because the area within Burton Mesa that encompasses the extant occurrences would be sufficient for the conservation of the species.

We used data from research published in peer-reviewed articles; reports and survey forms prepared for Federal, State, and local agencies and private corporations; site visits; regional Geographic Information Systems (GIS) layers, including soil and land use coverage; and data submitted to the California Natural Diversity Database (CNDDB). We also reviewed available information that pertains to the ecology, life history, and habitat requirements of this species. This material included information and data in peer-reviewed articles, reports of monitoring and habitat characterizations, reports submitted during section 7 consultations, and information received from local experts regarding Burton Mesa or Vandenberg monkeyflower.

Determining specific areas that Vandenberg monkeyflower occupies is challenging because areas may be occupied by the species even if no plants appear above ground (i.e., resident seed banks may be present with little or no visible aboveground expression of the species) (see “Background—Life History” section of the listing rule published elsewhere in today’s **Federal Register**). Additionally, depending upon the climate and other annual variations in habitat conditions, the observed distribution of the species may shrink, temporarily disappear, or enlarge to encompass more locations on Burton Mesa. Because Vandenberg monkeyflower occurs in sandy soils within canopy

gaps, and plant communities may undergo changes in which the gaps may shift spatially over time, the degree of cover that is provided by a vegetation type may favor the presence of Vandenberg monkeyflower or not. Furthermore, the way the current distribution of Vandenberg monkeyflower is mapped by the various agencies, organizations, or surveyors has varied depending on the scale at which occurrences of individuals were recorded (such as many small occurrences versus one large occurrence). Therefore, we considered areas as occupied where suitable habitat is present and contiguous with an extant occurrence of Vandenberg monkeyflower, but which may not currently contain aboveground individuals.

We used a multistep process to delineate critical habitat boundaries.

(1) Using Burton Mesa as a palette, we placed a minimum convex polygon around all nine extant occurrences and one potentially extirpated occurrence (Lower Santa Lucia Canyon) of Vandenberg monkeyflower based on CNDDDB and herbarium records, as well as survey information not yet formalized in a database. This resulted in a data layer of Vandenberg monkeyflower's current and historical range on Burton Mesa (see "Distribution of Vandenberg Monkeyflower" section of the proposed listing rule published elsewhere in today's **Federal Register**). We eliminated the 1931 occurrence that was identified approximately 5 mi (8 km) downwind and to the east in the Santa Rita Valley because there is no suitable habitat remaining at this site; thus, we consider this occurrence to be extirpated (see "Historical Locations" section in the proposed listing rule published elsewhere in today's **Federal Register**).

(2) We used GIS to overlay soil data (NRCS) across Burton Mesa, not excluding any soil types at this time because Vandenberg monkeyflower appears to be tied more closely to loose sandy soil than to a specific soil type. Therefore, to define suitable sandy soil where Vandenberg monkeyflower may occur, we included all soil types where the species is currently extant. These soil types include Arnold Sand, Marina Sand, Narlon Sand, Tangair Sand, Botella Loam, Terrace Escarpments, and Gullied Land. Additionally, we did not remove areas that comprise a small percentage of a different soil type if it was within a larger polygon of a suitable soil type because these areas were below the mapping resolution of the NRCS soil data we utilized.

(3) We expanded the distance from each extant occurrence and one potentially extirpated occurrence up to 1 mi (1.6 km) beyond the known outer edge of each occurrence of Vandenberg monkeyflower for the following reasons:

(a) We sought to maintain connectivity between occurrences of Vandenberg monkeyflower because seeds are primarily dispersed by gravity, along with wind, water, and small mammals. Habitat connectivity, especially canopy gaps where the species occurs, provides the necessary space needed for reproduction, dispersal, and individual and population growth (see “Physical and Biological Features” section above).

(b) A 1-mi (1.6-km) distance from each extant occurrence provides space for pollinator habitat. Vandenberg monkeyflower has a mixed mating system, and is dependent on pollinators to achieve seed production (see “Life History” section of the

proposed listing rule published elsewhere in today's **Federal Register**). We used general pollinator travel distances described in the literature to help determine a distance that would capture pollinator habitat most representative of invertebrate species that visit annual *Diplacus* flowers. Typically, pollinators fly distances that are in proportion to their body sizes, with larger pollinators flying longer distances (Greenleaf *et al.* 2007, pp. 593–596). Therefore, if a pollinator can fly long distances, pollen transfer is also possible across these distances. Pollinators often focus on small, nearby areas where floral resources are abundant; however, occasional longer distance pollination may occur. Studies by Steffan-Dewenter and Tschardt (2000, pp. 288–296) demonstrated that it is possible for bees to fly as far as 3,280 ft (1,000 m) to pollinate flowers. Walther-Hellwig and Frankl (2000, p. 303) showed *Bombus terrestris* (bumblebee) foraging distances from 0.93 to 1.1 mi (1.5 to 1.8 km). Heinrich (1979, pp. 109-122) assumed that *Bombus* species forage flights of 3.1 mi (5 km) could be effective, if the foraging habitats visited are more rewarding than others close by. Bumblebees, however, are not a likely pollinator of Vandenberg monkeyflower. Based on observations of other small annual *Diplacus* species, small solitary bees, which have shorter foraging distances than wild social bees such as bumblebees, are likely an important class of pollinator; therefore, we are using shorter foraging distances of the smaller solitary bees. See additional discussion in this section under (d) below for a rationale of why other distance values are inappropriate.

(c) Providing a critical habitat boundary that is 1 mi (1.6 km) from the nine extant occurrences and one potentially extirpated occurrence of Vandenberg monkeyflower

captures most of the remaining native vegetation on Burton Mesa, from east of the developed area on Vandenberg AFB through La Purisima Mission SHP (see “Distribution of Vandenberg Monkeyflower” section of proposed listing rule). In some instances, we expanded critical habitat farther than 1 mi (1.6 km) if the PCEs were contiguously present up-canyon. Expanding the boundary to 1 mi (1.6 km) created larger and contiguous blocks of suitable habitat, which have the highest likelihood of persisting through the environmental extremes that characterize California’s climate, and of retaining the genetic variability to withstand future stressors (such as invasive, nonnative species or climate change). Additionally, contiguous blocks of habitat maintain connectivity, which is important because habitat fragmentation can result in loss of genetic variation (Young *et al.* 1996, pp. 413–417), have negative effects on biological populations (especially rare plants), and affect survival and recovery (Aguilar *et al.* 2008, pp. 5177–5186). Furthermore, fragmentation has been shown to disrupt plant-pollinator interactions and predator-prey interactions (Steffan-Dewenter and Tschamntke 1999, p. 437), alter seed germination percentages (Menges 1991, pp. 158–164), and result in low fruit set (Jennerston 1988, pp. 359–366; Cunningham 2000, pp. 1149–1152). Fragments are often not of sufficient size to support the natural diversity prevalent in an area and thus exhibit a decline in biodiversity (Noss and Cooperrider 1994, pp. 50–54).

(d) We considered a critical habitat boundary at a distance of 0.5 mi (0.8 km) from the nine extant locations and one potentially extirpated location. This shorter distance, however, did not maintain connectivity of occurrences, did not encompass the remaining native vegetation of Burton Mesa, and did not represent a sufficient distance to

encompass long-distance seed dispersal or the distance that pollinators may travel. Except as described above in (c), we did not consider any distance larger than 1 mi (1.6 km) because the 1-mile distance captures the remaining native vegetation and the distribution of Vandenberg monkeyflower, and any distance greater than 1 mi (1.6 km) also captured habitat that is not suitable for this species. Therefore, the areas within our critical habitat boundaries include the range of plant communities and soil types in which Vandenberg monkeyflower is found, maintain connectivity of occurrences, and provide for the sandy openings mixed within the dominant vegetation. The delineated critical habitat contains the elements of physical and biological features that are essential to the conservation of the species.

We did not include agricultural areas because, while the underlying dune sheet may be present depending on the land use practices, the topsoil would most likely not consist of loose sandy soil and the associated vegetation community would not exist. A few smaller agriculture and grazing plots exist within the Burton Mesa Ecological Reserve, but agricultural lands mostly occur to the south and east of the Reserve and La Purisima Mission SHP.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for Vandenberg monkeyflower. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such

developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We are proposing to designate critical habitat on lands that we have determined are within the geographical area occupied by the species at the time of listing (occupied at the time of listing) and contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection.

One unit (including four subunits) is proposed for designation based on sufficient elements of physical or biological features being present to support Vandenberg monkeyflower life-history processes. All of the subunits contain all of the identified elements of physical or biological features and support multiple life-history processes.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the unit descriptions section of this document. We will make the

coordinates or plot points or both on which each map is based available to the public on <http://www.regulations.gov> at Docket No. FWS–R8–ES–2013–0049, on our Internet site <http://www.fws.gov/ventura/>, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

### **Proposed Critical Habitat Designation**

We are proposing one unit consisting of four subunits as critical habitat for Vandenberg monkeyflower. The critical habitat areas we describe below constitute our best assessment of areas that meet the definition of critical habitat for Vandenberg monkeyflower. The unit we propose as critical habitat is Burton Mesa, which contains four subunits: (1) Vandenberg, (2) Santa Lucia, (3) Encina, and (4) La Purisima (see Table 1 below). The critical habitat areas described below are within the geographical area occupied by the species at the time of listing, contain the physical and biological features essential to the conservation of the species, and may require special management considerations or protections. We are not proposing to designate any critical habitat in areas outside the geographical area occupied by the species at the time of listing. Table 1 includes the approximate area included within each proposed critical habitat subunit.

TABLE 1. Proposed critical habitat subunits for Vandenberg monkeyflower.  
[Area estimates reflect all land within critical habitat unit boundaries.]

<b>Critical Habitat Unit</b>	<b>Land Ownership by Type</b>	<b>Area Proposed for Critical Habitat in Acres (Hectares)</b>	<b>Total Size of Unit in Acres (Hectares)</b>

<b>Burton Mesa Unit</b>			
<b>1. Vandenberg Subunit</b>	Federal	277 (112)	<b>277 (112)</b>
<b>2. Santa Lucia Subunit</b>	State	1,422 (576)	<b>1,484 (601)</b>
	Local Agency	10 (4)	
	Private	52 (21)	
<b>3. Encina Subunit</b>	State	1,460 (591)	<b>2,000 (810)</b>
	Local Agency	24 (10)	
	Private	516 (209)	
<b>4. La Purisima Subunit</b>	State	1,792 (725)	<b>2,024 (819)</b>
	Local Agency	4 (2)	
	Private	228 (92)	
<b>Subtotals</b>	Federal	277 (112)	
	State	4,674 (1,892)	
	Local Agency	38 (16)	
	Private	796 (322)	
<b>Total<sup>1</sup></b>		<b>5,785 (2,341)</b>	<b>5,785 (2,341)</b>

Note: Area sizes may not sum due to rounding.

1-This total does not include 4,159 ac (1,683 ha) of lands within Vandenberg AFB that were identified as areas that meet the definition of critical habitat but are exempt from critical habitat designation under section 4(a)(3)(B) of the Act (see **Exemptions** section below).

We present brief descriptions of the Burton Mesa Unit and the four subunits, and reasons why they meet the definition of critical habitat for Vandenberg monkeyflower below.

#### *Burton Mesa Unit*

The Burton Mesa Unit contains most of the remaining native maritime chaparral vegetation on Burton Mesa, roughly from the eastern boundary of Vandenberg AFB; to the eastern boundary of La Purisima Mission SHP; to the Purisima Hills in the north; and to the agricultural fields south of the Burton Mesa Ecological Reserve and north of the Santa Ynez River. The vegetation is structured in a mosaic that contains canopy gaps

mixed with dominant woody and herbaceous vegetation (PCE 1), and the unit contains the loose, sandy soils on which Vandenberg monkeyflower occurs (PCE 2). Therefore, the Burton Mesa Unit provides all of the basic requirements for Vandenberg monkeyflower individual and population growth and contains the physical and biological features essential to the conservation of the species. The Burton Mesa Unit is within the geographical area occupied at the time of listing and is comprised of the four subunits described below.

#### Subunit 1: Vandenberg Subunit

Subunit 1 is within the geographical area occupied by Vandenberg monkeyflower at the time of listing and consists of 277 ac (112 ha). Subunit 1 is located adjacent to and between two extant occurrences (Oak Canyon and Pine Canyon, which are located on Vandenberg AFB) and is known to support suitable habitat for Vandenberg monkeyflower. Although Vandenberg monkeyflower plants have not yet been documented within this subunit, the area harbors the PCEs, and is contiguous with and between Vandenberg AFB lands that are known to be occupied; thus, this area within the proposed subunit (and the adjacent, contiguous land on Vandenberg AFB) is considered to be within the geographical area occupied by the species at the time of listing. The adjacent land on Vandenberg AFB is essential to the conservation of the species; however, we are not proposing to designate Vandenberg AFB as critical habitat within this subunit because we have exempted Vandenberg AFB from critical habitat designation under section 4(a)(3)(B) of the Act (see **Exemptions** section below).

Therefore, subunit 1 is composed entirely of Federal land (100 percent) exclusively owned and managed by the Department of Justice (DOJ) and which contains the U.S. Bureau of Prisons Federal Penitentiary Complex at Lompoc (Lompoc Penitentiary). The subunit consists of the westernmost portion of DOJ lands, from the Vandenberg AFB boundary line to roughly the bottom slope of Santa Lucia Canyon. Subunit 1 contains the appropriate vegetation structure of contiguous chaparral habitat with canopy gaps (PCE 1) and loose, sandy soils (PCE 2) that support Vandenberg monkeyflower. Subunit 1 provides connectivity of habitat between occurrences, habitat for pollinators, and space for establishment of new plants from seeds that are dispersed from adjacent extant occurrences of Vandenberg monkeyflower.

The features essential to the conservation of the species may require special management considerations or protection due to threats from invasion of nonnative plants. Ground disturbance within this subunit could remove suitable habitat and create additional openings for nonnative plants to invade and degrade the quality of the habitat.

#### Subunit 2: Santa Lucia Subunit

Subunit 2 is within the geographical area occupied by Vandenberg monkeyflower at the time of listing, is currently occupied by the species, and consists of 1,484 ac (601 ha). This subunit includes State lands (96 percent) within Burton Mesa Ecological Reserve, relatively small portions of local agency lands (for example, school districts, water districts, community services districts) (less than 1 percent) and private lands (3

percent). Subunit 2 contains the appropriate vegetation structure of contiguous chaparral habitat with canopy gaps (PCE 1) and loose, sandy soils (PCE 2) that support Vandenberg monkeyflower. The eastern boundary of Vandenberg AFB delineates the western boundary of this subunit. Subunit 2 includes most of the Vandenberg and Santa Lucia Management Units of the Reserve. Subunit 2 extends from Purisima Hills at the northern extent through the width of Burton Mesa to the agricultural lands south of the Reserve, and to the eastern boundary of the Vandenberg and Santa Lucia Management Units where these units abut Vandenberg Village.

Subunit 2 supports one extant occurrence (Volans Avenue) and one potentially extirpated occurrence (Lower Santa Lucia Canyon) of Vandenberg monkeyflower. Between 2006 and 2011, the Volans Avenue occurrence has consisted of no more than 25 individuals; the potentially extirpated occurrence was last observed in 1985 (see the “Distribution of Vandenberg Monkeyflower—Historical Locations” section of the proposed listing rule published elsewhere in today’s **Federal Register**). Subunit 2 provides connectivity of habitat between occurrences within this subunit, habitat for pollinators, space for establishment of seeds blown from upwind seed sources, and space for establishment of new plants from seeds that are dispersed from existing Vandenberg monkeyflower plants within the subunit.

The features essential to the conservation of the species may require special management considerations or protection due to threats from invasion of nonnative plants, and activities such as utility maintenance, and ORV and casual recreational uses.

These activities could remove suitable habitat and Vandenberg monkeyflower individuals, and create additional openings for nonnative plants to invade and degrade the quality of the habitat. We are considering to exclude from the Santa Lucia Subunit approximately 1,422 ac (576 ha) of lands within the Burton Mesa Ecological Reserve pursuant to section 4(b)(2) of the Act (see **Exclusions** section below).

### Subunit 3: Encina Subunit

Subunit 3 is within the geographical area occupied by Vandenberg monkeyflower at the time of listing and consists of 2,000 ac (809 ha). This subunit contains State-owned lands (73 percent), including most of the Encina Management Unit of the Burton Mesa Ecological Reserve, local agency lands (1.2 percent), and privately owned lands such as areas adjacent to the Clubhouse Estates residential development (26 percent) (see Table 1 above). Subunit 3 contains the appropriate vegetation structure of contiguous chaparral habitat with canopy gaps (PCE 1) and loose, sandy soils (PCE 2) that support Vandenberg monkeyflower. Subunit 3 extends from approximately the Purisima Hills to the north, through the Reserve and to the agricultural lands just south of the Reserve boundary, and is between Vandenberg Village and State Route 1 to the east and the residential communities of Mesa Oaks and Mission Hills to the west. Subunit 3 supports two extant occurrences of Vandenberg monkeyflower (Clubhouse Estates and Davis Creek). Between 2006 and 2011, hundreds of individuals have been observed on more than one occasion at each of these occurrences (see “Current Status of Vandenberg Monkeyflower” section of the proposed listing rule published elsewhere in today’s

**Federal Register**). Subunit 3 provides connectivity of habitat between occurrences within this subunit, habitat for pollinators, space for establishment of seeds blown from upwind seed sources, and space for establishment of new plants from seeds that are dispersed from existing Vandenberg monkeyflower plants within the subunit.

The features essential to the conservation of the species may require special management considerations or protection due to threats from invasion of nonnative plants, development, utility maintenance, and OHV and casual recreational uses. These activities could remove suitable habitat and Vandenberg monkeyflower individuals, result in trampling of individual plants, and create additional openings for nonnatives to invade and degrade the quality of the habitat. We are considering to exclude from the Encina Subunit approximately 1,460 ac (591 ha) of lands within the Burton Mesa Ecological Reserve (see **Exclusions** section below) pursuant to section 4(b)(2) of the Act.

#### Subunit 4: La Purisima Subunit

Subunit 4 is within the geographical area occupied by Vandenberg monkeyflower at the time of listing and consists of 2,024 ac (819 ha). Subunit 4 contains mostly State-owned lands (89 percent) consisting of most of La Purisima Mission SHP and a small portion of the La Purisima Management Unit of the Burton Mesa Ecological Reserve that is north of La Purisima Mission SHP. This subunit also contains private land to the east of La Purisima Mission SHP (11 percent), and a small portion of local agency lands (less than 1 percent) (see Table 1 above). Subunit 4 contains the appropriate vegetation

structure of contiguous chaparral habitat with canopy gaps (PCE 1) and loose, sandy soils (PCE 2) that support Vandenberg monkeyflower. This subunit extends approximately from the Purisima Hills in the north to the southern boundary of La Purisima Mission SHP, and between the residential communities of Mesa Oaks and Mission Hills to the west and to just east of, and outside, the State Park's eastern boundary. Subunit 4 supports two extant occurrences of Vandenberg monkeyflower in La Purisima Mission SHP (La Purisima East and La Purisima West). Between 2006 and 2011, more than 2,000 individuals of Vandenberg monkeyflower have been observed among the sites on both the east and west side of Purisima Canyon (see "Current Status of Vandenberg Monkeyflower" section of the proposed listing rule published elsewhere in today's **Federal Register**). This subunit provides connectivity of habitat between occurrences within this subunit, habitat for pollinators, space for establishment of seeds blown from upwind seed sources, and space for establishment of new plants from seeds that are dispersed from existing Vandenberg monkeyflower plants within the subunit.

The features essential to the conservation of the species may require special management considerations or protection due to threats from invasion of nonnative plants that could reduce the amount and quality of suitable habitat. We are considering to exclude from the La Purisima Subunit approximately 1,792 ac (725 ha) of State lands—250 ac (101 ha) of Reserve lands managed by California Department of Fish and Wildlife (CDFW) and 1,542 ac (624 ha) of La Purisima Mission SHP lands managed by California State Parks (see **Exclusions** section below) pursuant to section 4(b)(2) of the Act.

## Effects of Critical Habitat Designation

### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5<sup>th</sup> and 9<sup>th</sup> Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5<sup>th</sup> Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse

modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and
- (4) Would, in the Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency’s discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical

habitat.

#### *Application of the “Adverse Modification” Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for Vandenberg monkeyflower. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for Vandenberg monkeyflower. These activities include, but are not limited to:

(1) Actions that would lead to the destruction or alteration of Vandenberg monkeyflower habitat. Such activities could include, but are not limited to, development,

road and utility repairs and maintenance, anthropogenic fires, and some casual recreational uses. These activities could lead to loss of habitat; removal of the seed bank; introduction and proliferation of invasive, nonnative plants; reduction of pollinators; and habitat fragmentation.

(2) Actions that create ground disturbance and would lead to significant invasive, nonnative plant competition. Such activities could include, but are not limited to, any activity that results in ground disturbance and creates additional open areas for invasive, nonnative plants to invade Vandenberg monkeyflower habitat. Invasive, nonnative plants quickly establish in disturbed areas and outcompete native vegetation, including Vandenberg monkeyflower in the sandy openings (see *Factor A—Invasive, Nonnative Species* in the proposed listing rule).

## **Exemptions**

### *Application of Section 4(a)(3)(B) of the Act*

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resource management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- (2) A statement of goals and priorities;
- (3) A detailed description of management actions to be implemented to provide for these ecological needs; and
- (4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: “The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military

installations located within the range of the proposed critical habitat designation for Vandenberg monkeyflower to determine if they are exempt under section 4(a)(3) of the Act. Vandenberg AFB is the only Department of Defense land with a completed, Service-approved INRMP within the proposed critical habitat designation.

#### Approved INRMPs—Vandenberg Air Force Base (Vandenberg AFB)

Vandenberg AFB has a Service-approved INRMP. The U.S. Air Force (on Vandenberg AFB) committed to working closely with us and CDFW to continually refine the existing INRMP as part of the Sikes Act's INRMP review process. Based on our review of the INRMP for this military installation, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that certain lands within this installation meet the definition of critical habitat, and that conservation efforts identified in this INRMP, as modified by the 2012 Addendum, will provide a benefit to Vandenberg monkeyflower (see the following sections that detail this determination for the installation). Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3)(B) of the Act. In summary, we are not including as proposed critical habitat approximately 4,159 ac (1,683 ha) on Vandenberg AFB that meet the definition of critical habitat but are exempt from designation under section 4(a)(3)(B) of the Act.

#### Vandenberg Air Force Base

Vandenberg AFB is headquarters for the 30<sup>th</sup> Space Wing, the Air Force's Space Command unit that operates Vandenberg AFB and the Western Test Range and Pacific Missile Range. Vandenberg AFB operates as an aerospace center supporting west coast launch activities for the Air Force, Department of Defense, National Aeronautics and Space Administration, and commercial contractors. The three primary operational missions of Vandenberg AFB are to launch, place, and track satellites in near-polar orbit; to test and evaluate the Intercontinental ballistic missile systems; and to support aircraft operations in the western range. Vandenberg AFB lies on the south-central California coast, approximately 275 mi (442 km) south of San Francisco, 140 mi (225 km) northwest of Los Angeles, and 55 mi (88 km) northwest of Santa Barbara. The 99,100-ac (40,104-ha) base extends along approximately 42 mi (67 km) of Santa Barbara County coast, and varies in width from 5 to 15 mi (8 to 24 km).

The Vandenberg AFB INRMP was prepared to provide strategic direction to ecosystem and natural resources management on the Base. The long-term goal of the INRMP is to integrate all management activities in a manner that sustains, promotes, and restores the health and integrity of ecosystems using an adaptive management approach. The INRMP was designed to: (1) Summarize existing management plans and natural resources literature pertaining to Vandenberg AFB, (2) identify and analyze management goals in existing plans, (3) integrate the management goals and objectives of individual plans, (4) support Base compliance with applicable regulatory requirements, (5) support the integration of natural resource stewardship with the Air Force mission, and (6) provide direction for monitoring strategies.

Vandenberg AFB completed an INRMP in May 2011 (Air Force 2011c). The INRMP includes chapters that identify invasive, nonnative plants on the Base as well as step-down goals for the management of threatened and endangered species on the Base. However, since Vandenberg monkeyflower was not a listed species at that time, specific goals for this plant were not included. In 2012, the Air Force approved an addendum to the May 2011 INRMP that addresses specific goals for Vandenberg monkeyflower (Air Force 2012). Management considerations that provide a conservation benefit to Vandenberg monkeyflower in the addendum are:

(1) Avoiding Vandenberg monkeyflower and its habitat to the maximum extent practicable by relocating and redesigning proposed projects, and using biological monitors during project activities.

(2) Conducting nonnative species control efforts that target veldt grass across Vandenberg AFB. The Air Force has programmed more than \$500,000 to treat veldt grass, with funding that started in 2009 and would continue through 2019.

(3) Training Base personnel in the identification of sensitive species and their habitats, including Vandenberg monkeyflower, prior to implementing nonnative species control actions.

(4) Implementing a fire response program, such as a Burned Area Emergency Response project, which includes post-fire monitoring, habitat restoration, erosion control, and nonnative species management.

(5) Developing a controlled burning program that would include portions of

Vandenberg monkeyflower habitat.

(6) Conducting habitat and threat assessments to help decide the best approach for restoration actions.

(7) Periodic surveys of Vandenberg monkeyflower populations on the Base.

Vandenberg AFB supports four extant occurrences of Vandenberg monkeyflower located in Oak, Pine, Lakes, and Santa Lucia Canyons. Between 2006 and 2011, these four locations contained multiple occurrences; in 2010 specifically, more than 5,000 individuals were observed amongst all occurrences (see “Occurrences Located on Vandenberg AFB” section of the proposed listing rule published elsewhere in today’s **Federal Register**). Vandenberg AFB provides approximately half of the available suitable habitat (Burton Mesa chaparral) for Vandenberg monkeyflower and has four out of nine extant occurrences. However, based on the considerations above, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Vandenberg AFB INRMP and addendum, and the conservation efforts identified in the INRMP addendum will provide a conservation benefit to Vandenberg monkeyflower. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 4,159 ac (1,683 ha) of habitat in this proposed critical habitat designation because of this exemption.

## **Exclusions**

### *Application of Section 4(b)(2) of the Act*

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification

or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

In the case of Vandenberg monkeyflower, the benefits of critical habitat include public awareness of the presence of Vandenberg monkeyflower, the importance of habitat protection, and in cases where a Federal nexus exists, the potential increased habitat protection for Vandenberg monkeyflower due to the protection from adverse modification or destruction of critical habitat.

When we evaluate the existence of a conservation plan (or similar management plan) when considering the benefits of exclusion, we consider a variety of factors, including but not limited to, whether the plan is finalized, how it provides for the conservation of the essential physical or biological features, whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future, whether the conservation strategies in the plan are likely to be effective, and whether the plan contains a

monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Based on the information provided by entities seeking exclusion, as well as any additional public comments received, we will evaluate whether certain lands in the proposed critical habitat Subunits 2, 3, and 4 are appropriate for exclusion from the final designation pursuant to section 4(b)(2) of the Act. If the analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise her discretion to exclude the lands from the final designation.

After considering the following areas under section 4(b)(2) of the Act, we are considering excluding them from the critical habitat designation for Vandenberg monkeyflower. These areas include lands proposed for critical habitat within the Burton Mesa Ecological Reserve (including a portion of lands in Subunit 2—Santa Lucia, a portion of lands in Subunit 3—Encina, and a portion of lands in Subunit 4—La Purisima)

and lands proposed for critical habitat within La Purisima Mission SHP (a portion of lands in Subunit 4—La Purisima). Table 2 below provides approximate areas (ac, ha) of these lands that meet the definition of critical habitat and are under our consideration for possible exclusion under section 4(b)(2) of the Act.

TABLE 2—Areas considered for exclusion by critical habitat unit.

<b>Subunit</b>	<b>Specific area</b>	<b>Areas Meeting the Definition of Critical Habitat in Acres (Hectares)</b>	<b>Areas Considered for Exclusion in Acres (Hectares)</b>
Subunit 2—Santa Lucia	Burton Mesa Ecological Reserve	1,484 (601)	1,422 (576)
Subunit 3—Encina	Burton Mesa Ecological Reserve	2,000 (810)	1,460 (591)
Subunit 4—La Purisima	La Purisima Mission SHP	2,024 (819)	1,542 (624)
	Burton Mesa Ecological Reserve		250 (101)
<b>Total</b>		<b>5,508 (2,230)</b>	<b>4,674 (1,892)</b>

However, we specifically solicit comments on the inclusion or exclusion of these areas. In the paragraphs below, we provide a detailed analysis of our consideration to exclude these lands under section 4(b)(2) of the Act.

#### Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts,

we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors. The critical habitat subunits, as proposed, include Federal lands under the jurisdiction of the Department of Justice for the Lompoc Penitentiary, State lands with recreational uses, and private lands.

During the development of a final designation, we will consider economic impacts based on information in our economic analysis, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

#### Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense or Department of Homeland Security where a national security impact might exist. As discussed above under the **Exemptions** section, we are exempting Department of Defense lands at Vandenberg AFB because we have determined that the INRMP and addendum provide a conservation benefit to Vandenberg monkeyflower. We have also determined that the remaining lands within the proposed designation of critical habitat for the species are not owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security.

#### Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

We consider a current land management or conservation plan (HCPs as well as other types) to provide adequate management or protection if it meets the following criteria:

- (1) The plan is complete and provides a conservation benefit for the species and its habitat;
- (2) there is a reasonable expectation that the conservation management strategies and actions will be implemented into the future, based on past practices, written guidance, or regulations; and
- (3) the plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

Portions of the proposed critical habitat subunits may warrant exclusion from designation as critical habitat under section 4(b)(2) of the Act based on partnerships with

the State for management of the Burton Mesa Ecological Reserve and La Purisima Mission SHP, and the management and protection afforded by the general management plans the State has developed for the Reserve and the La Purisima Mission SHP, as discussed below.

**Burton Mesa Ecological Reserve.** The State Lands Commission signed a 49-year lease of the Burton Mesa Ecological Reserve on January 20, 2000. The purpose of the lease is to manage, operate, and maintain these sovereign lands for the sensitive species and habitats they support (Gevirtz *et al.* 2007, p. 3). The CDFW developed a management plan for the Reserve. This plan guides management of habitats, species, and programs to achieve the mission of CDFW to protect and enhance wildlife values (Gevirtz *et al.* 2007, p. 1). Management objectives that provide a conservation benefit to Vandenberg monkeyflower include:

- (1) Minimizing damage to sensitive natural resources from ground disturbance.
- (2) Minimizing the presence and impact of invasive, nonnative species.
- (3) Maintaining a network of trails for public use while protecting resources and preventing unauthorized uses.
- (4) Maintaining habitat continuity around the Reserve to limit the fragmentation of native vegetation on Burton Mesa.
- (5) Restoring native areas that have been altered by humans to natural habitats.
- (6) Monitoring the effectiveness and validity of the management actions.
- (7) Encouraging public education about the ecosystem of the Reserve.

(8) Developing a fire (fuel) management plan to provide for public safety of nearby residential areas and to protect the numerous special status plants and animals on the Reserve (Gevirtz *et al.* 2007, pp. 229–265).

These management objectives would benefit Vandenberg monkeyflower by reducing the loss of suitable habitat; minimizing the presence and expansion of invasive, nonnative plants; minimizing the pathways for nonnative plants to invade suitable habitat; reducing potential trampling of individual plants during casual recreational use; and maintaining an adequate fire regime for the benefit of the native Burton Mesa chaparral vegetation. Although aspects of this general management plan address to some degree the above criteria for exclusion of lands from critical habitat designation (for instance, it provides a conservation benefit and strategies and measures consistent with currently accepted principles of conservation biology), we have concerns whether funding and staffing will be available to adequately implement this plan to protect Vandenberg monkeyflower in the future. We are considering the exclusion of State lands covered by the Reserve's plan that provide for the conservation of Vandenberg monkeyflower. We are requesting comments on the benefit to Vandenberg monkeyflower from this plan and our consideration to exclude these lands from the final designation under section 4(b)(2) of the Act (see the **Information Requested** section).

**La Purisima Mission State Historical Park (SHP).** California State Parks has guidelines for the management of natural resources and sensitive species. Based on measures included in a general management plan for La Purisima Mission SHP that was

completed in 1991 (California State Parks 1991), we are considering lands covered by the plan for exclusion under section 4(b)(2) of the Act. General plans for State Parks are prepared to guide future management and development of State Park System units (California State Parks 1991, p. 10). The goal of the State Parks natural resource management program is to protect, restore, and maintain the natural resources in the State Park System. Additionally, broad resource management policies concerning State Historic Parks are stated in the Public Resources Code, the California Code of Regulations, and the Department's Resource Management Directives (California State Parks 1991, p. 54).

Although the primary goal of the La Purisima Mission SHP plan is historical preservation, there are resource management directives specific to La Purisima Mission SHP that would include the habitat where Vandenberg monkeyflower occurs, which include:

- (1) Preserving Burton Mesa chaparral.
- (2) Protecting and managing rare and endangered plants in perpetuity.
- (3) Maintaining a network of trails for public use while protecting resources and preventing unauthorized uses.
- (4) Controlling nonnative plants that have become established in La Purisima Mission SHP.
- (5) Developing a wildfire management plan (Cox 2013, pers. comm.).

These management objectives would benefit Vandenberg monkeyflower by reducing the loss of suitable habitat; minimizing the presence and expansion of invasive, nonnative plants; minimizing the pathways for nonnative plants to invade suitable habitat; reducing potential trampling of individual plants during casual recreational use; and implementing wildfire management guidelines to minimize the potential impact to natural resources while suppressing fires. Although there are aspects of this general management plan that address to some degree the above criteria for exclusion of lands from critical habitat designation (for instance, it provides a conservation benefit and strategies and measures consistent with currently accepted principles of conservation biology), we have concerns whether funding and staffing will be available to adequately implement this plan to protect Vandenberg monkeyflower in the future. We are considering the exclusion of State lands covered by this general management plan that provide for the conservation of Vandenberg monkeyflower. We are requesting comments on the benefit to Vandenberg monkeyflower from La Purisima Mission SHP's general management plan (see the **Information Requested** section).

In preparing this proposal, we have determined that there are currently no HCPs or other management plans for Vandenberg monkeyflower, and the proposed designation does not include any tribal lands. We anticipate no impact on tribal lands, partnerships, or HCPs from this proposed critical habitat designation.

## **Peer Review**

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period.

We will consider all comments and information received during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

### **Public Hearings**

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in FOR FURTHER INFORMATION CONTACT. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

### **Required Determinations**

*Regulatory Planning and Review—Executive Orders 12866 and 13563*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small

businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than \$7 million. To determine whether small entities may be affected, we will consider the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

Under the RFA, as amended, and following recent court decisions, Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and not the potential impacts to indirectly affected entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is our position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service may certify that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

We acknowledge, however, that in some cases, third-party proponents of the action subject to permitting or funding may participate in a section 7 consultation, and thus may be indirectly affected. We believe it is good policy to assess these impacts if we have sufficient data before us to complete the necessary analysis, whether or not this analysis is strictly required by the RFA. While this regulation does not directly regulate these entities, in our draft economic analysis we will conduct a brief evaluation of the potential number of third parties participating in consultations on an annual basis in order to ensure a more complete examination of the incremental effects of this proposed rule in the context of the RFA.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat will only directly regulate Federal agencies which are not by definition small business entities. Therefore, we certify that, if promulgated, this designation of critical habitat would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required. However, though not necessarily required by the RFA, in our draft economic analysis for this proposal we will consider and evaluate the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly

Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Oil extraction is still occurring on the oil field to the north of the Burton Mesa Ecological Reserve that is operated by Plains Exploration and Production Company (PXP). Multiple remnant pipelines associated with oil production remain in several locations just outside of the Reserve's boundaries (Gevirtz *et al.* 2007, p. 57). A triplet pipeline runs from the Lompoc Oil and Gas Plant to the offshore oil platform Irene, crossing Vandenberg AFB. Therefore, a Federal nexus with the Air Force or the Federal Energy Regulatory Commission may exist; however, Vandenberg AFB is not proposed as critical habitat. We do not expect the designation of this proposed critical habitat to significantly affect energy supplies, distribution, or use. This is because, under section 7 of the Act, the lead agency for a proposed project would need to consider substantial project modifications only if the project were to reach a threshold of jeopardizing the continued existence of the species or destroy or adversely modify its critical habitat, a scenario that is unlikely with Vandenberg monkeyflower. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if warranted.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)-(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because approximately 85 percent of the lands being proposed for Vandenberg monkeyflower critical habitat are on lands managed by State agencies, primarily CDFW and California State Parks. A small percentage of land (38 ac (15 ha), or 0.7 percent) proposed as critical habitat falls within the land use jurisdiction of local agencies (such as special-use districts, water districts, and community service districts). The local-agency lands proposed as critical habitat are a small percentage of the total land area proposed. Small governments would be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions would not adversely affect critical habitat. Moreover, these agencies would

be required to meet other regulatory mechanisms (such as CEQA) in addition to compliance with the Act. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if appropriate.

#### *Takings—Executive Order 12630*

In accordance with Executive Order 12630 (“Government Actions and Interference with Constitutionally Protected Private Property Rights”), this rule is not anticipated to have significant takings implications. As discussed above, the designation of critical habitat affects only Federal actions. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. We have not yet completed the economic analysis for this proposed rule. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted, and prepare a Takings Implication Assessment.

#### *Federalism—Executive Order 13132*

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce

policy, we requested information from, and coordinated development of, this proposed listing and critical habitat designation with appropriate State resource agencies in California. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

#### *Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have

proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the proposed rule identifies the elements of physical or biological features essential to the conservation of Vandenberg monkeyflower. The areas of proposed critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

*Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This

position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

#### *Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands that are within the geographical area occupied by Vandenberg monkeyflower at the time of listing that contain the features essential to the conservation of the species, and no tribal lands outside the geographical area occupied by Vandenberg monkeyflower at the time of listing that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for Vandenberg monkeyflower on tribal lands.

### *Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

### **References Cited**

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> at Docket No. FWS-R8-ES-2013-0049 and upon request from the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

## **Authors**

The primary authors of this package are the staff members of the Ventura Fish and Wildlife Office.

## **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

## **Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

### **PART 17—[AMENDED]**

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245; unless otherwise noted.

2. In § 17.96, amend paragraph (a) by adding the family Phrymaceae and an entry for “*Diplacus vanderbergensis* (Vandenberg monkeyflower)” in alphabetical order to read as follows:

**§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*

\* \* \* \* \*

Family Phrymaceae: *Diplacus vanderbergensis* (Vandenberg monkeyflower)

(1) Critical habitat units are depicted for Santa Barbara County, California, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of Vandenberg monkeyflower consist of two components:

(i) Native maritime chaparral communities of Burton Mesa comprised of maritime chaparral and maritime chaparral mixed with coastal scrub, oak woodland, and small patches of native grasslands. The mosaic structure of the native plant communities (arranged in a mosaic of dominant vegetation and sandy openings (canopy gaps)), may

change spatially as a result of succession, and physical processes such as windblown sand and wildfire.

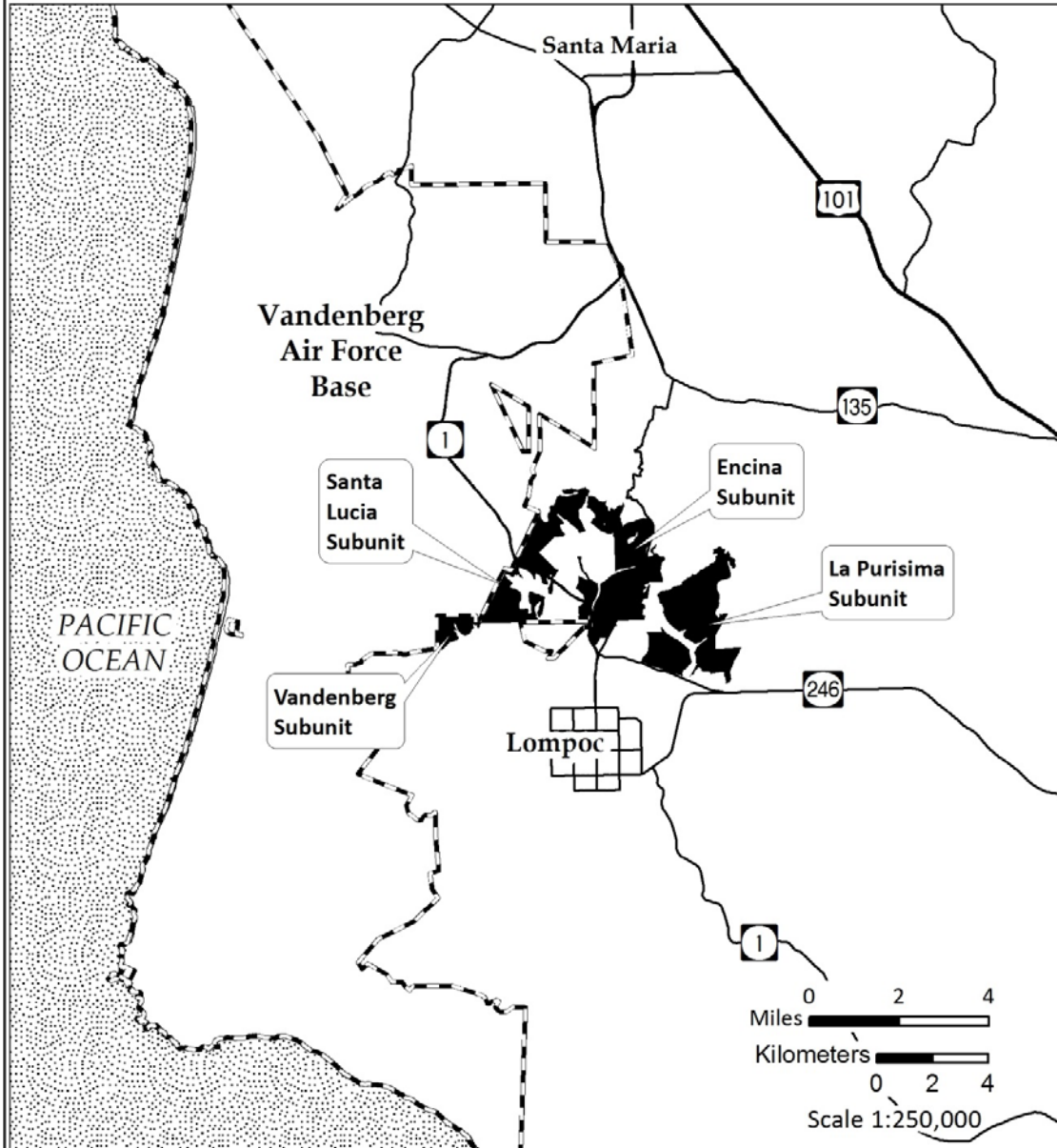
(ii) Loose sandy soils on Burton Mesa. As mapped by the Natural Resources Conservation Service (NRCS), these could include the following soil series: Arnold Sand, Marina Sand, Narlon Sand, Tangair Sand, Botella Loam, Terrace Escarpments, and Gullied Land.




(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of any final rule designating critical habitat for Vandenberg monkeyflower.

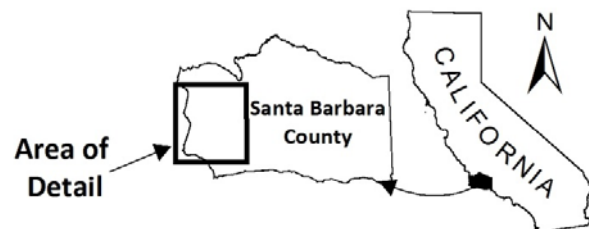
(4) *Critical habitat map units.* Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) Zone 15N coordinates.

(5) *Note:* Index map follows:

## Critical Habitat for Vandenberg Monkeyflower



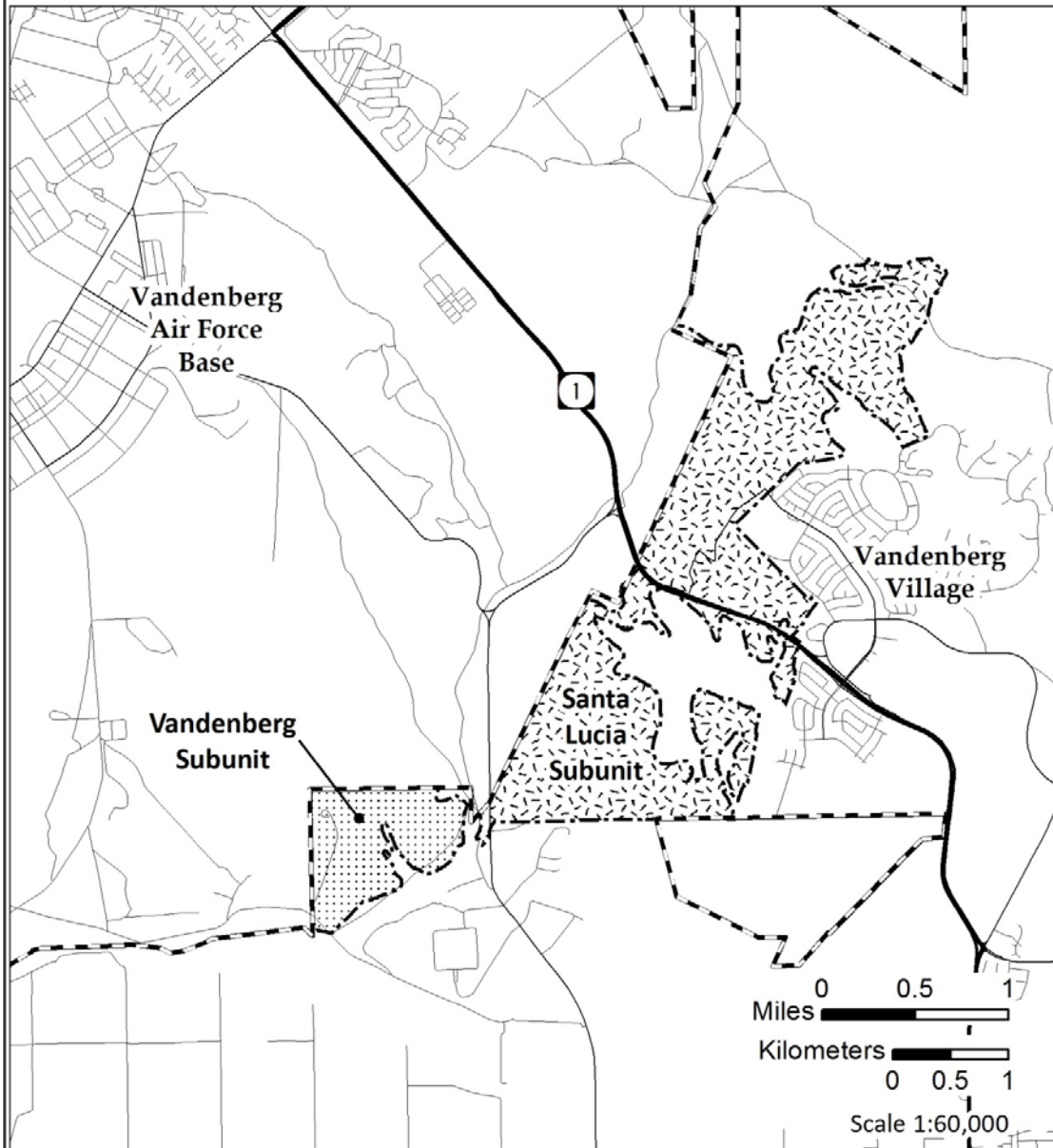
-  CRITICAL HABITAT
-  VANDENBERG AFB BOUNDARY
-  ROADS






(6) Unit 1, Subunit 1 (Vandenberg) and Subunit 2 (Santa Lucia): Santa Barbara County, California. Map of Unit 1, Subunits 1 and 2 follows.

# Critical Habitat for Vandenberg Monkeyflower

## Vandenberg and Santa Lucia Subunits

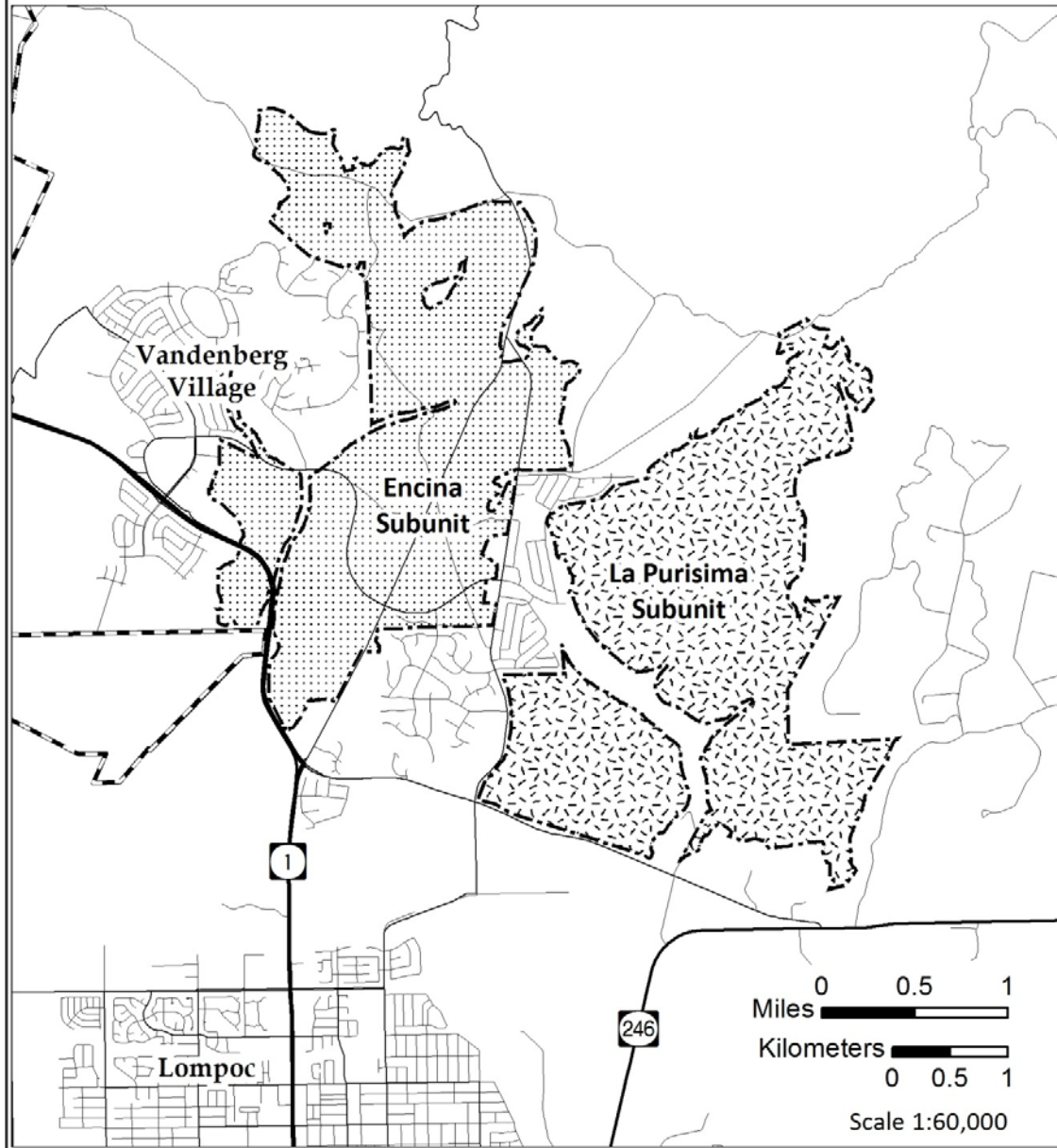





-  CRITICAL HABITAT
-  VANDENBERG AFB BOUNDARY
-  ROADS



(7) Unit 1, Subunit 3 (Encina) and Subunit 4 (La Purisima): Santa Barbara County, California. Map of Unit 1, Subunits 3 and 4, follows:

# Critical Habitat for Vandenberg Monkeyflower Encina and La Purisima Subunits



-  CRITICAL HABITAT
-  VANDENBERG AFB BOUNDARY
-  ROADS



\* \* \* \* \*

October 21, 2013.

Rachel Jacobson,

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

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